STATE OF MAINE
PUBLIC UTILITIES COMMISSION

March 9, 1998

ORDER (CALCULATION OF EXOGENOUS CHANGES)

PUBLIC UTILITIES COMMISSION
Investigation Into Regulatory Alternatives for the New England Telephone and Telegraph Company d/b/a NYNEX

Docket No. 94-123

NEW ENGLAND TELEPHONE & TELEGRAPH COMPANY D/B/A BELL ATLANTIC
1997 Annual AFOR Filing

Docket No. 97-667

WELCH, Chairman; NUGENT and HUNT, Commissioners

I. SUMMARY OF DECISION

In this Order, we rule that the recalculation of the Price Regulation Index (PRI) that must be included in Bell Atlantic's annual AFOR filing shall include exogenous cost changes on a forward-looking basis. The exogenous cost factor shall be based on the costs that will be in effect during the rate effective year (December 1 through November 30) that follows the annual AFOR filing.

II. BACKGROUND

On October 3, 1997, New England Telephone & Telegraph Company d/b/a Bell Atlantic-Maine filed its second annual AFOR filing in Docket No. 97-667. The annual AFOR filing is designed to adjust core rates for the following AFOR rate year. The maximum level of overall rates for Bell Atlantic's core services is established by the Price Regulation Index (PRI). The formula for the revised PRI is stated at page 38 of the original AFOR Order (May 15, 1995) in Docket No. 94-123 and in our recent Order of December 23, 1997, issued in both Docket No. 97-079 and Docket No. 94-123. We also restate it here:

$$\text{PRI (new)} = \text{PRI (current)} \times [1 + (\text{GDP-PI} - X \pm Z)/100]$$

Where:

GDP-PI = Percent change in the Gross Domestic Product Price Index for the first quarter (ending March 31) of the current year compared to the same quarter in the previous year.[1]

---

[1]The AFOR Order requires the use of the GDP-PI for the second quarter. An Order issued on August 23, 1996 in Docket Nos. 94-123

X = Productivity offset of 4.5%.

Z = Exogenous changes, expressed as a percentage of the Step 2 revenue calculation described in the December 23, 1997 Order.

During 1997, two events occurred that constituted “exogenous changes” as defined by the AFOR Order at 55. The first took effect on May 1, 1997 and was a change in the method by which telephone companies must allocate the category of expense called “Other Billing and Collection” (OB&C) between the federal and state jurisdictions. The second change, deregulation of the local coin rate for pay telephones, became effective in October of 1997. The FCC ordered that revenues, expenses and investments associated with local coin telephone service be accounted for as non-regulated activities.

In the AFOR filing, for rates that will be effective between December 1, 1997 and November 30, 1998, Bell Atlantic included 2/12 of the change in the OB&C expense allocation and none of the expense, revenue and investment changes associated with payphone deregulation.

We note first that in Docket No. 94-123 (re-opened) we have under consideration a stipulation filed on November 7, 1997 (subsequent to the second annual AFOR filing) that addresses rate issues associated with the requirement of 35-A M.R.S.A. § 7101-B to reduce access charges to the interstate level by May 30, 1999 (hereinafter the "Access Parity Stipulation"). That Stipulation also addresses the two exogenous changes described above. The signatory parties agreed that Bell Atlantic would not need to include either of these exogenous changes in the second[2] or any subsequent annual AFOR filing for the duration of the AFOR. If we approve the Access Parity Stipulation, the PRI will not include the two exogenous changes described above for the remainder of the AFOR. If we do not approve the Access Parity Stipulation, it is necessary to determine the correct portion of the two described changes that should be included in the PRI, which determines the maximum overall rate level.[3] In any event, there may be future exogenous changes, and we

(the AFOR case) and 96-440 (the first annual AFOR filing) changes the measuring period to the first quarter of each year.

[2]As noted above, the second annual AFOR filing preceded the Access Parity Stipulation and therefore included calculations for the two described exogenous changes, but at the levels (2/12 and 0/12) indicated.

[3]Bell Atlantic and the staff assigned to Docket No. 97-667 have

therefore believe it is necessary to determine the correct method of calculating exogenous cost changes that are included in any future annual AFOR filing.

III. DISCUSSION

As noted above, in the second annual AFOR filing, Bell Atlantic included only 2/12 of the effects of OB&C exogenous change and none of the effects of payphone deregulation exogenous change. Bell Atlantic apparently included only these portions because only two months of the OB&C changes are included in the period of July 1, 1996 to June 30, 1997, and none of the payphone changes are included in that period. Bell Atlantic apparently has considered the annual period of July 1 to June 30 to be a "test period" for purposes of calculating changes under the PRI formula. In fact, however, that period applies only to the billing units (sales quantities) that are used as part of a calculation that determines whether rates are in compliance with the PRI. The billing units are used only for a limited purpose in two revenue calculations. They are not used in the PRI formula itself, and no component of the PRI formula presently uses July 1 through June 30 as a measurement period.[4]

---

agreed, first, that neither of the two described changes will be included in rates until after the Commission rules on the Access Parity Stipulation and, second, that if the Access Parity Stipulation is *not* approved, the exogenous changes included in this year's filing will be put into effect in such a manner that their full required effect will be realized. We will not issue our decision regarding the Access Parity Stipulation until some time in the future. If we were to reject the stipulation, Bell Atlantic would have to include 100% of both the OB&C and payphone exogenous changes in rates for the full 1998 AFOR rate year. If, for example, it is not possible to put them into effect until May 1 of 1998, under the agreement between staff and the Company, the *monthly* rate effect for the remaining six months of the AFOR rate year (May 1, 1998 through November 30, 1998) will be doubled.

[4]The AFOR Order originally required the Company to calculate inflation as the "percent change in the [GDP-PI] of the second quarter ending June 30 of the current year over the same quarter in the previous year." At Bell Atlantic's request, because second quarter data was not available by September 1 (the annual AFOR filing date), we ordered that Bell Atlantic shall calculate the percentage change in GDP-PI using the percentage charge in GDP-PI between the first quarters of the current and previous years. Supplemental Order (Aug. 23, 1996), Docket Nos. 94-123 and 96-440 (First Annual AFOR Filing).

Bell Atlantic argued in its exceptions that the AFOR Order at page 105 requires it to include several categories of data in its

Under the AFOR, the PRI establishes the maximum overall level for core rates. Bell Atlantic must establish that the core rates it proposes do not, overall, exceed the PRI. To do so, as explained in the December 23, 1997 Order, the Company must provide two revenue calculations (Steps 2 and 4). Both of these calculations use the billing units for the 12-month (July 1 through June 30) period preceding the annual filing for this calculation.[5]

The period that is used for sales volumes (July 1-July 30) is not used in the calculation of the PRI itself. The PRI serves as a measure of costs. There are three cost components: inflation (GDP-PI), productivity (***X***, fixed at 4.5%) and exogenous changes (***Z***).[6]

annual AFOR filing that use the annual period July 1-June 30. These include the GDP-PI, the service quality index (SQI), the API, and even the PRI itself. As noted above, the measurement period for the GDP-PI has been changed. The SQI is a separate index that is completely independent of the PRI formula and calculation and has no effect on rates. If the SQI is too low, Bell Atlantic must provide customers with a service quality rebate.

The statement at page 105 of the AFOR Order that requires Bell Atlantic to provide the PRI "in effect during the previous 12-month period ending June 30" is in error. The next page of the AFOR Order requires Bell Atlantic to provide a "calculation of the PRI to be used for the forthcoming 12-month period beginning December 1." The recalculated PRI serves as the cap for rates that are in effect from December 1 to the following November 30 and therefore necessarily is "in effect" during the same time period.

[5]The billing units for each rate element are multiplied by the current rates for each rate element, and each result total is added to produce a "current revenue" amount (Step 2). The same billing units are multiplied by proposed rates and the results are added together to produce a "proposed revenue" amount (Step 4).

[6]The December 23, 1997 Order requires Bell Atlantic to convert its exogenous cost changes to a percentage. That percentage is calculated by dividing exogenous costs by the revenue calculation in Step 2 required by the December 23 Order. The Step 2 revenue calculation uses the rates in effect for the "current" rate year and "historic" billing units, i.e., those for the most recent July 1-June 30 period. In its exceptions, Bell Atlantic argues that the use of "historical" billing units in this calculation proves that exogenous costs are also historic.

Bell Atlantic's argument is incorrect. The most recent historic billing units are simply the best record of sales that is available for use in a total revenue calculation; future billing units are not

Only one of those components (inflation) is tied to a specific time period and that period (inflation for the year ending the first quarter of the current year divided by the same period for the prior year) is different from the billing units period used in the revenue calculations.[7]

The question we must answer in this Order is whether exogenous cost changes should be included in the PRI calculation on a forward-looking or a historical basis. To a great extent, the answer is driven by the nature of the PRI and of its role in establishing rates under the AFOR. The three factors in the PRI formula represent Bell Atlantic's costs. Two factors (general inflation and exogenous costs) are costs over which Bell Atlantic has little or no control. Bell Atlantic does have some control over the second factor in the formula, productivity. The PRI is therefore a measure of costs. It does not represent Bell Atlantic’s actual costs (as does a revenue requirement determination under rate-of-return regulation), but it does establish the costs Bell Atlantic is likely to achieve if it is reasonably efficient.

available. The use of historic billing units and current rates in the Step 2 "current" revenue calculation do, of course, suggest that the Step 2 calculation is "historic." In turn, the Step 2 revenue calculation is used as the denominator of the calculation to establish the percentage change in exogenous costs. But the use of a "historic" denominator in the Step 2 current revenue calculation or, indirectly, in the exogenous change percentage calculation, does not establish that the numerator of the latter calculation (exogenous cost changes) is not forward-looking. Our decision about whether exogenous cost changes are forward-looking or not is based on considerations about the nature and goals of ratemaking, and not on the technical details of a calculation that merely converts exogenous cost changes to a percentage.

It might be theoretically preferable to use a "future" revenue calculation for the denominator of the exogenous cost change percentage calculation. Step 4 described in the December 23 Order is such a calculation. It, however, uses the same historic billing units as the Step 2 calculation (because future billing units are not available), although it uses proposed (rather than current) rates. In any event, it is not practical to use the Step 4 calculation. Bell Atlantic cannot propose new rates (or perform the "future" revenue calculation of Step 4) until *after* it calculates the PRI, and, if there is any exogenous cost change, it cannot calculate the PRI until it convert exogenous cost changes to a percentage using some existing revenue calculation. The only revenue calculation is the Step 2 calculation.

[7]As noted above, the measurement period for GDP-PI originally ended at the end of the second quarter.

As discussed above, the PRI is used in the AFOR to establish Bell Atlantic's overall maximum rate level. It therefore plays the same role under the AFOR as a revenue requirement (actual cost) determination does under rate-of-return regulation. Under the AFOR, ratemaking continues to be forward-looking and based on forward-looking costs. We base our conclusion on three considerations: the fact that ratemaking in Maine generally is prospective; the wording of the AFOR Order; and the structure of annual rate changes under the AFOR. Because the AFOR is forward-looking, it follows that exogenous cost changes and other costs that are included in the PRI are those that will affect the costs of the AFOR rate year following the calculation.

Historically, ratemaking in Maine has been prospective in nature and based on forward-looking costs. Immediately prior to the AFOR, Bell Atlantic was subject to "rate-of-return" regulation. That form of regulation was used to establish the cost-based starting point for the AFOR. It continues to apply to numerous other utilities in Maine. Rate-of-return regulation uses an historical test year to determine expected costs and revenues. However, it is not the purpose of the test year to allow a utility to recover those historical costs. History is used only as the best available means under that form of regulation to predict the costs that a utility will experience while the rates that are being established will be in effect. There is no slavish adherence to the test year; when it is known that history will be wrong, and that a "known and measurable" change in a test year expense, investment level or revenue amount has occurred or will occur, the Commission will adjust the test year number.

Clearly, the OB & C and payphone changes ordered by the FCC are known and measurable. They are changes that took effect prior to the beginning of the AFOR rate year and will be effective during all (not 2/12 or 0/12) of the AFOR rate year. In the litigation preceding the AFOR Order, Bell Atlantic (then NYNEX) apparently believed that exogenous cost changes would be used in a prospective manner under the AFOR. The AFOR Order at 53, states: "NYNEX defines exogenous cost changes as *known and quantifiable* costs . . . ."

The AFOR Order also supports our conclusion. Just prior to setting forth the PRI formula, it states:

> The PRI is a formula that determines the amount by which NYNEX can *adjust* annually the aggregate weighted level of all its *prices* for core services *to reflect cost changes* caused by inflation, offset by the growth in productivity and by limited changes in exogenous costs. The inflation factor of the formula is the Gross

> Domestic Product Price Index (GDP-PI), which is designed to measure *changes* in national output prices. The productivity factor, commonly known as the ***X*** factor, is fixed for the duration of the AFOR and is set to build into rates the reasonably *expected changes* in productivity for core services. The exogenous change factor, commonly known as the ***Z*** factor, is designed to reflect limited *changes* in costs outside of NYNEX's control and not otherwise reflected in the inflation factor. The PRI will be used as the basis for its annual filings in which it will adjust the aggregate prices for its core services.

AFOR Order at 38 (emphasis added).

The quoted passage establishes that the PRI, and *adjusted prices* based on the PRI, are intended to *reflect cost changes*. In the case of the productivity factor, the Order makes clear that the cost changes are those that are “reasonably expected.” It would make little sense under an incentive form of regulation to attempt to pass through historically-achieved changes in productivity. The PRI’s measure of inflation (GDP-PI) is historic, but that is consistent with prior regulation: the past (for example, test year experience) is used to predict the future, as long as there is no known and measurable change that contradicts the past experience. It is not possible to predict inflation precisely, and the most recent available actual experience serves as a reasonable forward-looking measure. The measure of inflation is as forward-looking as is possible, consistent with the "known and measurable" standard.

Nothing in the sentence describing the exogenous cost factor indicates by itself that the PRI should reflect exogenous cost changes either on a going-forward basis or as a pass-through of historical cost changes. Nevertheless, the first sentence of the quoted passage does indicate that all three cost factors are tied together temporally (inflation is “offset by” the other two factors). Thus, if inflation and productivity are foward-looking, it follows that exogenous cost changes are also.

At least as important as what the AFOR Order does say is what it does not say. The AFOR Order provides no indication that we intended any departure from our long history of prospective ratemaking based on forward-looking costs. Indeed, a departure from our past practice, in the direction of a flow-through of historic costs, would be contrary to one of the important purposes of incentive ratemaking: to untie the link between rates and *actual* costs. Each change in the PRI fixes the maximum level of rates that Bell Atlantic may establish for the next year following the recalculated PRI. During that year, Bell Atlantic has the incentive to reduce its costs or increase its sales.

The structure of year-to-year rate changes in the AFOR provides probably the most conclusive evidence in the AFOR Order that the rates in each AFOR year are foward-looking. As discussed above, the PRI is a representation of Bell Atlantic's costs, and the annual change in the PRI represents the change in those costs. At the start of the AFOR, the *Pease* investigation (Docket No. 94-256) established Bell Atlantic's revenue requirement and the maximum overall rate level for the first AFOR year (December 1, 1995 to November 30, 1996). The *Pease* revenue requirement was a rate-of-return determination and, as indicated above, was by definition forward-looking: the costs we found in that case are those that NYNEX was likely to experience during the first AFOR year. It follows that the first change in the PRI (at the end of the first AFOR rate year and the beginning of the second) represented the costs that were expected to have occur during the second AFOR rate year. Similarly, the revised PRI that is used in the AFOR filing preceding for the third AFOR rate year (beginning December 1, 1997) represents the costs for the third AFOR rate year; and so on.

We conclude that the PRI, including the exogenous cost change factor is, foward-looking and that rates under the AFOR are based on the costs that are expected to occur while the rates are in effect. To the extent that the AFOR Order does not make this aspect of the AFOR clear, we make it explicit now. Our conclusion also establishes that the July 1 to June 30 period that precedes each annual filing is used solely for the purpose described in our Order of December 23, 1997 and is not a test period for determining the extent of any cost changes under the PRI formula.

Accordingly, we

O R D E R

1. If an exogenous change in costs becomes effective prior to the beginning of the AFOR rate year that will affect Bell Atlantic's costs during the entirety of that year, the entirety of that cost shall be included in the PRI calculation.

2. If an exogenous cost change that will become effective during the upcoming AFOR rate year is known in advance and is measurable, that cost shall be included on a pro-rated basis.

3. If an exogenous change that will affect the upcoming rate year becomes known after the annual filing date of September 1, Bell Atlantic shall notify the Commission immediately.

Dated at Augusta, Maine this 9th day of March, 1998.

BY ORDER OF THE COMMISSION

____
Dennis L. Keschl
Administrative Director

COMMISSIONERS VOTING FOR: Welch
Nugent
Hunt